



2870 CRESTWOOD BLVD. STE B
IRONDALE, AL 35210
205-957-0020



DEFENDER

Defender Prime - Ceramic Epoxy Primer

TECHNICAL DATA SHEET

PRODUCT DESCRIPTION

Defender Prime is a polyurea primer that can be brushed, sprayed, or rolled. It is a ceramic epoxy primer designed for superior adhesion. Ideal for concrete, metal, steel, and fiberglass substrates, Defender Prime enhances bond strength between polyurea coatings and the surface. Additionally, it is NSF 61/600 certified for potable water applications, ensuring safety and reliability.



AVAILABLE COLORS

Beige

AVAILABLE KIT SIZES

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A	5 gal Defender Prime A
B	5 gal Defender Prime B
Kit	10 gal Defender Prime kit

NSF 61/600

For use with tanks greater than or equal to 30,000 gallons, not exceeding a surface area to volume ratio of 11.61 cm² /L. Minimum Re-coat/Final Cure Time/temp prior to water immersion: 7 days at 70 deg F, up to 30 mils DFT, up to 10% thinning with Defender Reducer.



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PERFORMANCE TESTING

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ASTM B117 Salt Fog	3500 hrs, no effect
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ASTM D4541 Adhesion to Carbon Steel	2500 psi

COMPATIBLE TOPCOATS

AR40, AR45, AR50, AR55, AR56, AR57, AR58, AL70, EZ25.

SURFACE PREPARATION

All substrates clean and dry, free of dirt, oils, greases and contaminants

SURFACE PREPARATION

Carbon Steel	Abrasive blast to SSPC SP-6 with a 1-3 mil profile for atmospheric service, SSPC SP-10 for immersion (1-3 mil profile)
Concrete	Abrasive blast as per SSPC SP-13 to an ICRI CSP 3 or greater. Can be applied over cementitious underlayment
Repairs, small areas	SSPC SP-11 power tool to bare metal to produce an angular profile

SHELF LIFE & STORAGE

2 year shelf life parts A and B, store long term between 35 and 90°F, in a controlled environment. Recommend heating material to 80-85°F in the 24 hours prior to application.



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FILM THICKNESS

	MINIMUM	MAXIMUM	COVERAGE RATE
Wet film	6 mils	12 mils	834 ft ² /gal at 1 mil
Dry film	3 mils	6 mils	167 ft ² /gal at 5 mils

APPLICATION INSTRUCTIONS

Single Leg Airless Spray

Remove all filters from spray system, use pump capable of 2,000 psi line pressure; 0.015-0.019 spray tip. Pre-heat material from 70-80°F prior to mixing and application.

Plural Airless Spray

Remove all filters from spray system, use Graco XP70 or equivalent heated plural spray unit with heated hose bundle and in-line static mixer. 0.015-0.019 spray tip. Heat A and B components to between 70 and 85°F and spray at minimum line pressure to achieve fan.

Brush and Roll

Thin as needed with Defender Reducer at up to 10%.

MIX RATIO

1:1 by volume A:B

POT LIFE

50°F	75°F	90°F
2.5 hours	4 hours	1 hour

THINNING

Up to 10% with Defender Reducer.



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CONDITIONS

All steel temperatures must be $\geq 5^{\circ}\text{F}$ above the dewpoint, ambient temperatures $\geq 50^{\circ}\text{F}$.

	MINIMUM	MAXIMUM
Substrate temperature	90°F	140 °F
Material temperature	50°F	120°F
Humidity	0% RH	95% RH

CURE	50°	75°F	90°F
Dry to handle	3 hrs	90 min	1 hr
Dry to topcoat minimum	3 hrs	45 min	30 min
Dry to topcoat maximum	1 year	1 year	1 year
Cured for immersion service	7 days	7 days	3 days

PHYSICAL PROPERTIES

HAPS	1.13 lbs/gal
VOC	336 g/L
Volume solids	52 ± 1%
Weight solids	66 ± 1%



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DISCLAIMER

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the user's responsibility to satisfy themselves, by their own information and test, to determine suitability of the product for their own intended use, application and job situation and user assumes all risk and liability resulting from their use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and UMI Coatings makes no claim that these tests or any other tests, accurately represent all environments.